



Underground Storage Facility

Compliance Audit Checklist for Third Party Inspections

May 20, 1998

Instructions: Submit a copy of the Underground Storage Facility Audit Checklist to the facility owner. If deficiencies are discovered, recommendations on what is required to achieve compliance should be included along with a recommended timetable for performing the necessary work. This audit is voluntary and a copy of the Underground Storage Facility Compliance Audit Checklist is not required to be submitted to the Department of Environmental Services.

1. Draw a sketch of the site on page 10 of this form. Include:

- A. The orientation of the underground storage tanks (UST) and pipes (number the tanks), audible alarm, monitor and rectifier location.
- B. The placement of any monitoring wells.
- C. North arrow.
- D. General slope of the land.
- E. Use of adjacent properties.
- F. Wells in the immediate area (monitoring; drinking water; town; etc.).
- G. All buildings and utilities (to the best of your abilities)

2. A site picture would be helpful, but is not required.

Yes No

3. Is UST facility in compliance with Underground Storage Tank Rule Env-Wm 1401?

Yes	No
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4. In the space provided (use additional paper if necessary) please list the work necessary to achieve compliance with the New Hampshire Underground Storage Tank Facility rule Env-Wm 1401.

5. Proposed timetable for completing compliance work _____

Signature of Auditor _____ Date _____

Print Auditor Name and Company _____

Facility Information

Facility Name: _____
Street Address: _____
City: _____ State: N.H. ZIP: _____
Phone: (603) _____

Facility Owner Information

Owner's Name: _____
Mailing Address: _____
City: _____ State: _____ ZIP: _____
Phone: () _____

Property Owner Information

Owner's Name: _____
Mailing Address: _____
City: _____ State: _____ ZIP: _____
Phone: () _____

Tank #	Size (gallons)	Product Stored	Installation Date	Tank Construction Material	System Type (pressure/ Suction)	Pipe Construction Material

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Facility Inspection

Date: _____

Inspector's Name: _____

Company Name: _____

Address: _____

City: _____ State: _____ ZIP: _____

Name of Facility Representative On Site: _____

****Shaded statements indicates compliance best determined by field inspection.****

Use of tools and special equipment may be necessary.

I. Facility	Yes	No	N/A	Unk
1. All underground storage tank (UST) systems are registered with NHDES.				
2. UST registration form is complete.				
3. All tanks installed after 11/20/85 are double wall with interstitial monitoring				
4. Pressurized pipe installed after 9/17/85 is double wall.				
5. Pressurized pipe installed after 11/19/90 is double wall with monitored sump.				
6. All piping installed after 4/22/97 is double wall with monitored sump.				
7. Permit to Operate fee was paid in full. Amount : \$_____ Date Paid _____				
8. Permit to Operate is posted at the facility and <u>not</u> past the expiration date.				
9. Systems installed after 11/20/85 have a Tank Certificate posted at the facility.				
10. Tank closure reports were submitted for all tank systems permanently closed after 11/19/90.				
11. All steel tank systems 25 years old or greater without cathodic protection are permanently closed.				
12. The new owner of the UST tank facility submitted a registration form to the NHDES after transfer of ownership.				

13. Storage of substances in UST system remain the same as currently registered (i.e., not changed from a non-regulated substance to a regulated nor vice versa).				
14. The owner of UST facilities maintains financial responsibility for costs associated with the cleanup of releases from UST systems, the implementation of corrective measures, and compensation for third party damages in the amount equal to or greater than \$1,000,000 per occurrence (see the rules for reimbursement from the Oil Discharge Cleanup Fund).				
15. All previous violations of Env-Wm 1401 have been corrected.				

Complete the following for each tank system or compartment by tank number as listed on page 2.

C=compliance

X=noncompliance

N/A= not applicable

*= See notes

II. Inventory Monitoring Env-Wm 1401.11					
A. Motor fuel, bulk storage fuel oil and hazardous UST systems without secondary containment and leak monitoring.	1	2	3	4	5
1. Facility registration number, tank number, capacity, and type of substance listed on inventory form.					
2. Tank contents measured in gallons before and after delivery on inventory form.					
3. Measurement of liquid stored by gauge stick or automatic tank gauge to nearest 1/8" accuracy for each operating day.					
4. Daily loss or gain of product in gallons for each operating day on inventory form.					
5. Monthly loss or gain in gallons of product (monthly variance) on inventory form					
6. Daily sales or metered use in gallons of product for each operating day on inventory form.					
7. Monthly sales or metered use in gallons of product on inventory form.					
8. Maximum allowable limit (monthly variance) in gallons (sales x 1% + 130) completed on inventory form					
9. Water levels are measured at least monthly and listed on inventory form.					
10. A tightness test was performed on the system with an unexplained gain or loss of regulated substance greater than 1.0 percent of the pump meter reading plus 130 gallons, or with a change in water level of 2 inches or more in any one month, or total water depth of 3 inches or more.					
11. Owner signature is recorded certifying the accuracy of the records.					
12. Owner has reported releases to NHDES.*					
B. On-premise-use heating oil systems or emergency generator systems without secondary containment and leak monitoring (Annual Tank Gauging).	1	2	3	4	5
1. Records show that the unmonitored single wall pipe for the emergency generator tank system is pressure tested annually.					

2. Records show that the unmonitored single wall suction pipe is tested every 3 years.					
3. Facility registration number, tank number, capacity, and type of substance is listed on the inventory form.					
4. Tank product and water level measurements were recorded at the beginning and end of an idle period of at least 30 days, during which no product was added to or removed from the tank.					
5. The measurement equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest 1/8 of an inch.					
6. A tightness test was performed on the system with an unexplained gain or loss of oil, or a total water depth of 3 or more inches					
7. Records available show tightness test, monitoring wells, or automatic tank gauge (ATG) was substituted for inventory monitoring for heating oil system.					
8. Owner signature is present certifying the accuracy of the inventory monitoring for heating oil system and emergency generator system records.					
9. Owner has reported releases to NHDES.*					
C. Waste oil systems without secondary containment <u>and</u> leak monitoring.	1	2	3	4	5
1. Records show that the unmonitored single wall pipe is pressure tested annually.					
2. Facility registration number, tank number, capacity, and type of substance listed on inventory form.					
3. Tank product and water level measurements were recorded at the beginning and end of an idle period of at least 36 hours, during which no oil was added to or removed from the tank.					
4. The measurement equipment used is capable of measuring the level of oil over the full range of the tank's height to the nearest 1/8 of an inch.					
5. A tightness test was performed on the system with an unexplained gain or loss of oil or an unexplained change in water level.					
6. Records available show a release detection method (tightness test, monitoring wells, etc.) was substituted for monthly tank gauging.					
7. Owner signature is present certifying the accuracy of the records.					
8. Owner has reported releases to NHDES.*					

* It is the duty of any person having knowledge of any spillage of regulated substance to the environment to report the spill to NHDES.

C=compliance

X=noncompliance

N/A= not applicable

*= See notes

III. Tightness Testing Env-Wm 1401.13	1	2	3	4	5
1. An UST system without secondary containment <u>and</u> leak monitoring has at least one passing tightness test since 9/9/89.					
2. Signature of technician performing the test is on report.					
3. The tester conducting tank tightness tests was current with the manufacturer's certification and was registered with NHDES at time of test.					

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IV. UST System Closure Env-Wm 1401.17 and 1401.18	1	2	3	4	5
1. The owner of the facility has notified the NHDES in writing that the tank system is temporary closed .					
2. Tank system without secondary containment and leak monitoring that is temporary closed for one year or more has been permanently closed.					
3. The owner of the facility has notified the NHDES in writing that the tank system was permanently closed .					
4. Tank system permanently closed after 11/19/90 has a complete closure report submitted to NHDES.					
5. A tank system permanently closed after 10/22/97 was done by a contractor with International Fire Code Institute (IFCI) certification.					

*C=compliance X=noncompliance N/A= not applicable *= See notes*

V. Approval Of New or Substantially modified UST Systems Env-Wm 1401.20	1	2	3	4	5
1. Owner has submitted plans and specifications for tank systems installed after 9/17/85 to the NHDES. The plan was prepared and stamped by a registered professional engineer, licensed to practice in the State of New Hampshire.					
2. Owner has received plan approval from the NHDES and completed construction of the UST systems within one year of the approval date.					
3. Owner has received a backfill approval prior to operating a new or substantially modified system.					
4. Systems installed after 10/22/97 were done by a contractor with IFCI certification.					
5. All remote fill pipe installed using plans approved after 4/22/97 has sumps and monitored secondary containment.					
6. Siphon pipe installed between tanks using plans approved after 4/22/97 are equipped with a liquid-tight tank sump and sump sensor at all interconnected tanks.					
7. A liquid tight dispenser sump was installed directly beneath each dispenser to contain discharges on systems installed after 4/22/97.					
8. New UST sites, where no UST system existed prior to 4/22/97, are located no closer than (1) 400 feet from a large community or non-transient, non-community water supply system well; or (2) 200 feet from a small community or non-transient, non-community water supply system well; or (3) 75 feet from a private water supply well.					
9. Substantial modifications to the UST system are registered with NHDES.					

C=compliance

X=noncompliance

N/A= not applicable

*= See notes

VI. Spill Containment and Overfill Protection Env-Wm 1401.25	1	2	3	4	5
1. All UST systems are equipped with spill containment devices.					
2. The spill containment device is empty.					
3. All UST systems are equipped with overfill protection devices which alerts the transfer operator when the tank is no more than 90% full by (1) restricting the flow into the tank or by triggering a high level audible alarm; or (2) when gravity filling a tank, alerts the transfer operator 30 minutes prior to overfilling by restricting flow to an ultimate rate of 5 gallons per minute; or (3) automatically shuts off flow into the tank when the tank is no more than 95% full.					
4. The overfill device was removed and proper installation verified. (Yes / No)					

C=compliance

X=noncompliance

N/A= not applicable

*= See notes

VII. Leak Monitoring Env-Wm 1401.26, 1401.27 and 1401.31	1	2	3	4	5
1. The leak monitor continuously monitors for both regulated substance and water.					
2. The leak monitor, interstitial sensor, and sump sensor are tested annually to confirm they operate according to manufacturers recommendations.					
3. All UST interstitial sensor were tested and are operating at this inspection.					
4. The space between the secondary containment and the primary pipe is continuously monitored to detect the presence of both water and the regulated substance.					
5. A liquid tight monitoring sump is located at the lowest point of the pipe system.					
6. The sump sensor was tested and is operating at this inspection. (Yes / No)					
7. The pressurized pipe is equipped with an automatic line leak detector .					
8. Records show the automatic line leak detector is tested annually to confirm that it is operating according to manufacturer's recommendations.					

C=compliance

X=noncompliance

N/A= not applicable

*= See notes

VIII. Release Detection Env-Wm 1401.29	1	2	3	4	5
1. Annual tightness testing is used on a single-wall tank system (heating oils exempt) as a release detection method before 12/22/98.					
2. Automatic tank gauging is used for release detection (heating oils exempt), and the gauge provides at least one passing test in a 30 day period for tank leakage with a detection limit of at least 0.2 gallons per hour and operates in a leak detection mode for at least 2 hours during each 24 hour period.					
3. The owner of the UST system has reported any automatic tank gauging failure to the NHDES.					

5. Groundwater monitoring wells are used for release detection (heating oils exempt), and the owner monitors (visual or continuous monitoring device) the groundwater wells at least monthly for the presence of regulated substances.					
6. Records show when groundwater monitoring wells are used for release detection, the owner has sampled each monitoring well at least annually and has the samples analyzed at a New Hampshire-certified laboratory for the presence of regulated substance.					
7. Where releases of regulated substances have previously occurred or groundwater is contaminated with a regulated substance, monitoring wells are not used as a release detection method.					
8. Soil gas vapor monitoring wells are used for release detection, and the owner is monitoring the soil vapor wells at least monthly for the presence (regulated substance vapor detector) of regulated substances.					
9. Records show pressurized pipe is tightness tested annually as a release detection mechanism. Pipe pressure tightness test was conducted having a detection limit equivalent to 0.1 gallon per hour at 1.5 times operating pressure.					
10. Release detection results show tank and / or pipe does not leak.					

C=compliance

X=noncompliance

N/A= not applicable

*= See notes

IX. Corrosion Protection System Env-Wm 1401.32	1	2	3	4	5
1. The double wall UST system is reported to be protected from corrosion.					
2. After 12/22/98 the single wall UST system is reported to be protected from corrosion.					
3. Records show a passing test on the cathodic protection system was completed within 6 months of installation and every 3 years thereafter by a qualified cathodic protection tester.					
4. Cathodic protection tester is NACE or IFCI certified if system tested after 10/22/97.					
5. Records show that UST system with impressed current corrosion protection system is inspected every 60 days to insure the equipment is running properly.					
6. Rectifier for impressed current corrosion protection system is operational.					
7. The cathodic protection test met one of the following requirements: (1) A negative cathodic potential of at least 850 mV with the cathodic protection applied, which is measured with respect to a saturated copper/copper sulfate reference electrode contacting the electrolyte; or (2) minimum of 100 mV of cathodic polarization, the formation or decay of polarization can be used to satisfy this criterion; or (3) The requirements specified in NACE International approved criteria (NACE) Standard RP-0285-95.					
8. Records show prior to installing corrosion protection for an unprotected single wall UST system, the owner submitted a corrosion protection plan prepared by a corrosion protection expert for approval to the NHDES.					
9. Records show a failed corrosion protection system was repaired by a corrosion expert or the tank was closed.					

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<i>X. Fueling Systems Over Water Env-Wm 1401.35</i>	1	2	3	4	5
1. Pipe associated with a petroleum system for fueling over water installed after 4/22/97 which is at an elevation that produce a pressure due to gravity has an anti-siphon device installed adjacent to and downstream from a manually operated shutoff valve. The anti-siphon device and manual shutoff valves are located inside a liquid-tight collection sump at the tank.					
2. When an UST system over water was installed after 4/22/97, a liquid-tight collection sump with sensor is present on sections of piping that does not have secondary containment.					
3. When an UST system over water was installed after 4/22/97, the pipe system has flexible secondarily contained pipe between any floating structure and the shore.					
4. When an UST system over water was installed after 4/22/97, the pipe system is equipped with a readily accessible shutoff valve located on the shore, as close to the shoreline as possible and the valve installed adjacent to and upstream from the location employing flexible pipe from a floating structure and the shore.					
5. When an UST system over water was installed after 4/22/97, the dispensing nozzle is an automatic closing type without a device that allows the dispensing nozzle to remain open.					
6. When an UST system over water was installed after 4/22/97, the pipe system is not installed in surface water.					

*C=compliance X=noncompliance N/A= not applicable *= See notes*

<i>XI. Lined Tank Systems Env-Wm 1401.36</i>	1	2	3	4	5
1. Records show the previously lined UST system passed a tightness test within 30 days after lining of the tank was completed.					
2. Records show the lining was inspected and tested 10 years from the date of installation, then every 5 years thereafter for structural soundness, voids, detachment from the metal tank, and other defects.					

*C=compliance X=noncompliance N/A= not applicable *= See notes*

<i>XII. Repair of Tank Systems Env-Wm 1401.37</i>	1	2	3	4	5
1. Records show the UST system passed a tightness test following the completion of the repair of the tank system before it is backfilled.					

*C=compliance X=noncompliance N/A= not applicable *= See notes*

<i>XIII. Hazardous Substance Tank Systems Env-Wm 1401.40</i>	1	2	3	4	5
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1. A hazardous substance UST system has secondary containment <u>and</u> leak monitoring after December 22, 1998.					

XIV. Sketch of the site.



